



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 13, 1994

Docket Nos. 50-387  
and 50-388

LICENSEE: Pennsylvania Power & Light Company (PP&L)  
FACILITY: Susquehanna Steam Electric Station, Units 1 and 2  
SUBJECT: MEETING WITH PENNSYLVANIA POWER AND LIGHT COMPANY STAFF TO DISCUSS REVISIONS TO THE SUSQUEHANNA STEAM ELECTRIC STATION (SSES) SITE EMERGENCY PLAN - JUNE 2, 1994

In January 1993, PP&L submitted a complete revision of its Emergency Plan (EP) implementing the new Emergency Action Levels (EALs) based on the NUMARC NESP-007 methodology. In this submittal, the licensee had identified and justified a number of exceptions to the NUMARC methodology which were further addressed in a January 1994 submittal. On June 2, 1994, NRC and PP&L staff met at the SSES Emergency Operations Facility to discuss the NRC position on some of these exceptions which would require further justification, clarification, or revision for final approval and implementation.

Enclosure 1 is a list of those who attended the meeting and Enclosure 2 is a list of staff concerns related to the proposed EALs provided by PP&L for which the staff had requested clarification or modification in previous discussions. This list was the basis for detailed discussions during the meeting.

The following is a brief summary of commitments for each concern listed in Enclosure 2 which were made during the meeting intended to lead to resolution of staff concerns and ultimate approval of the final EP. (Note: Refer to PP&L submittals dated January 21, 1993, "Susquehanna Steam Electric Station Revision to Emergency Plan", and January 5, 1994, "Susquehanna Steam Electric Station Response to RAI on Revision to Emergency Plan Which Implemented NUMARC NESP-007" for a detailed listing of the EALs referenced in this meeting summary.)

1. Lack of a fission product barrier matrix in the EALs.

The staff indicated that it is not necessary to include EAL's which indicate the loss or potential loss of a fission product barrier in a matrix form as long as the PP&L clarification scheme results in an event being classified consistent with that resulting from using NUMARC methodology. Additional staff evaluation of the equivalence of PP&L fission product EALs and the NUMARC fission product barrier matrix is yet to be completed. It was agreed that the three bullets listed under this item would not be discussed but would be addressed in a follow-up conference call.

2. Initiating conditions (ICs) are not included in the EALs

After significant discussion, PP&L agreed to reformat their EALs to include ICS in each EAL. The licensee committed to prepare a revised set of EALs and

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would discuss them with operators to determine the interface with Emergency Operating Procedure actions and decision processes. Subsequently, the new EALs would be submitted to the staff for approval. PP&L stated that it is important to have the approved in the near term to accommodate the training schedule window this year.

3. EAL 2.1.4a does not use the maximum core uncover time graph.

The licensee provided a discussion of the justification for not using the NUMARC guidance based on the need to maintain consistency with the EOPs. The staff found the justification acceptable and requested that it be provided to the staff in writing.

4. EAL 2.1.4.b classification may be overconservative; this would also apply to EAL 2.1.3.b.

PP&L indicated that it would modify the basis to discuss the importance of water level as an indicator of a significant transient and would add information taken from the corresponding EOP to indicate how the operator is aware that the water level is truly lost. The proposed changes were acceptable to the staff.

5. EAL 2.2.3 does not address all conditions.

PP&L agreed to specify a 5% power level in the EAL and to add a justification for the basis for a 110 °F suppression pool temperature.

6. EAL 2.2.4 needs a justification for the 200 °F degree suppression pool temperature.

PP&L agreed to provide additional discussion of core cooling and heat removal capability of the pool in the EAL.

7. EAL 3.1.2 needs a justification for the time period allowed for a 50 gpm leak of reactor coolant before an alert is declared.

PP&L indicated that leakage of that magnitude was difficult to measure accurately and that the more significant parameter to monitor was the drywell pressure. NUMARC guidance indicates 1.72 psi would require an alert, but PP&L indicated that 3 psi is more justified because of the number of automatic and manual mitigation features in the design. The staff agreed to evaluate the licensee's position further.

8. EAL 4.2.2 classification as an alert level is in question.

The staff stated that this EAL was not part of the NUMARC package but suggested that PP&L modify the basis to reflect the indicators of low flow of main steam. The staff also indicated that it would further consider the justification provided for this EAL.

9. The dose calculation methodology used in Section 5.1 EALS needs discussion.

PP&L indicated that the average annual meteorology as per RG 1.3 was used and the FSAR source terms were also used. It was also stated that although the NUMARC document recommended using 200 times the technical specification (TS) dose limits for iodine for an alert level, 20 times the TS limits were used for Susquehanna based on realistic site meteorology.

10. EAL 5.2.3 does not reflect NUMARC guidance.

PP&L agreed to provide a justification for reflecting the effective dose instead of the dose rate in this EAL.

11. EAL 5.2.4 does not reflect NUMARC guidance.

PP&L agreed to provide a justification for reflecting the effective dose instead of the dose rate in this EAL.

12. EAL 6.1.2 needs to address having one offsite line and no diesels.

PP&L agreed to make this change to the EAL.

13. EAL 6.1.4 does not include fission product barrier monitoring.

PP&L indicated that it had considered the information to be redundant to that included in fission product barrier EAL but the staff indicated that it was not. The licensee agreed to review this EAL and make the necessary changes for conformity with the NUMARC guidance.

14. EAL 7.3.3: Clarify what will stop HPCI and RCIC from operating.

PP&L indicated that the actual pressure in the discharge line will stop the ECCS systems from injecting. In addition, these lines can be manually isolated. The staff indicated that it will reconsider this EAL.

15. EAL 7.4.1.a: Clarify whether the examples in Table 7.4.1 should be joined with "and" or "or".

PP&L committed to look into this EAL for possibly adding further clarification.

16. EAL 8.1.1 is not consistent with NUMARC guidance.

PP&L agreed to revisit this EAL, will provide additional justification, and will revise the EAL for clarification.

Upon closure of the meeting, it was agreed that a status conference call will be held on Monday, June 13, at 2 p.m.

Original signed by:

Chester Poslusny, Jr., Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. List of Attendees
- 2. PP&L Handout

cc w/enclosures:  
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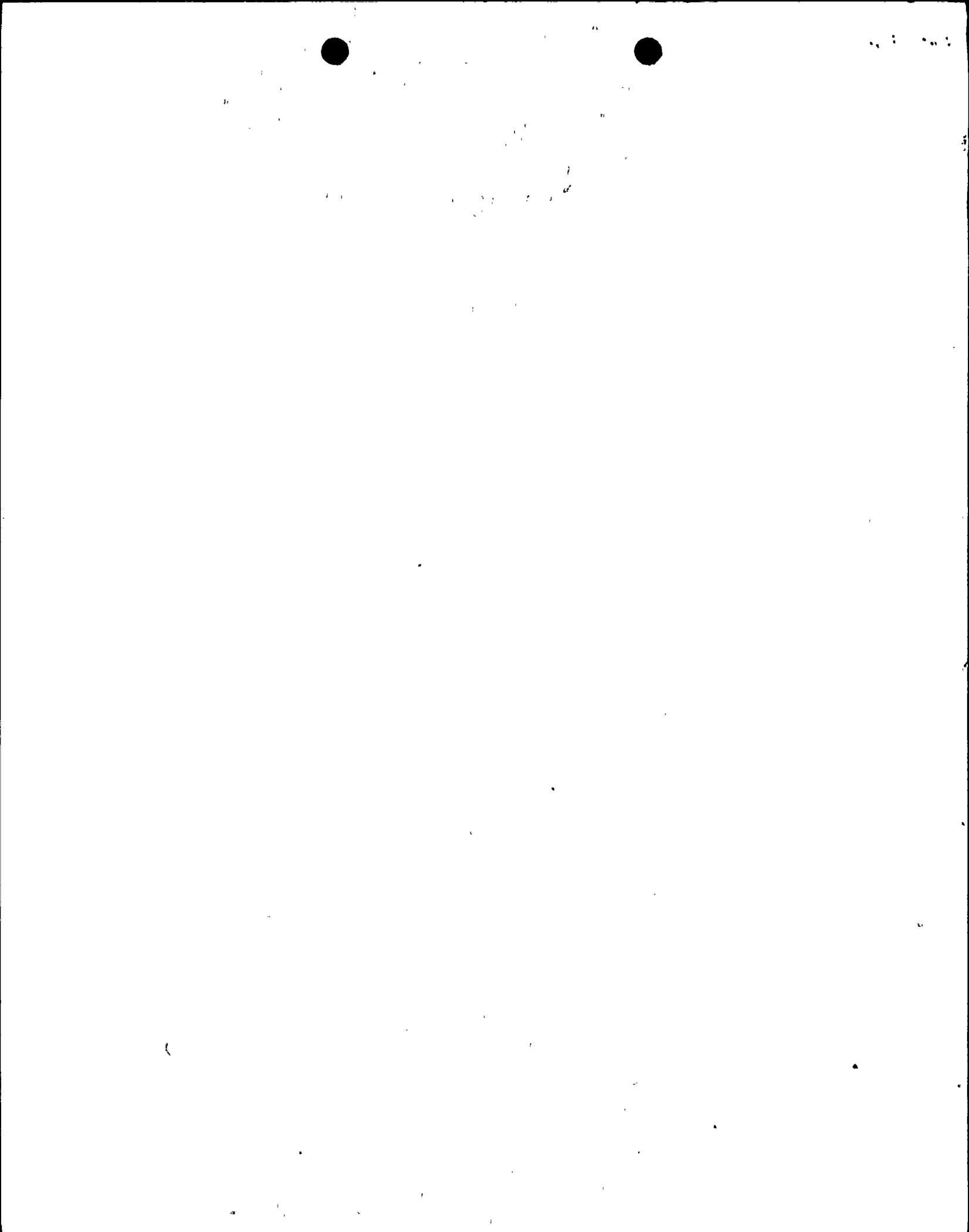
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Upon closure of the meeting, it was agreed that a status conference call will be held on Monday, June 13, at 2 p.m.



Chester Poslusny, Jr., Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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1. List of Attendees
2. PP&L Handout

cc w/enclosures:  
See next page

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MEETING BETWEEN NRC & PP&L  
DISCUSSION OF REVISIONS TO EMERGENCY PLAN  
JUNE 2, 1994

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**PP&L**

May 25, 1994

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C. A. Myers	A2-4
A. M. Price	SSES
D. J. Steffenauer	SSES

**SUSQUEHANNA STEAM ELECTRIC STATION**  
**NRC MEETING ON EMERGENCY ACTION LEVELS**  
**PLJ-77658** **FILE A17-8**

The meeting with the NRC to discuss our proposed EALs will be held on June 2, 1994, in the small conference room in the EOF starting at noon. The following NRC personnel will be at the meeting: Jim O'Brian, NRR; Chet Poslusny, NRR Project Manager; and a Region I inspector. The NRC would like us to address the following issues and questions:

1. The main concern of the NRC is that our proposed EALs do not contain a fission product barrier matrix. They are concerned from both a technical area as well as from a human factors point of view. They are concerned that since we classify using single points, this could lead to either over classifying or under classifying the event. They are also concerned that without a matrix we will not have a 'big picture' of the event. Also without a matrix the notification to the outside agencies could be confused and could add confusion to the NRC monitoring of the event.

The following technical issues are of concern to the NRC:

- Our treatment of the potential loss of containment based on 4% hydrogen.
- Are there any events that would result in a containment pressure of > 53 psig other than a design basis LOCA?
- Is a containment rad monitor reading of 2.8K really an indication of the potential loss of RCS?

The NRC acknowledged that NUMARC never stated that the fission product barrier matrix had to be in the form of a table. The NRC will present an alternative position at the meeting.

2. The NRC's second major concern is that our EALs do not contain initiating conditions. They are concerned that there will be miscommunication with outside agencies. The NRC would like a discussion of why our EALs work without containing initiating conditions.



3. The NRC would like to know why we did not use the maximum core uncover time graph from the EOPs in EAL 2.1.4.a. Other utilities use this graph.
4. The NRC feels that the loss of water level indication indicated in EAL 2.1.4.b may be an over classification. They believe that this is a loss of indication event and not a loss of fuel integrity. This would also apply to EAL 2.1.3.b.
5. The NRC does not believe that EAL 2.2.3 covers all conditions. They want to discuss this further.
6. In EAL 2.2.4, why was 200°F chosen?
7. The NRC is concerned with the time it would take to declare an alert for a 50 gpm water leak inside containment in EAL 3.1.2. They would like to discuss why it is acceptable to have a 50 gpm leak for over an hour before an alert is declared.
8. What is the reason that EAL 4.2.2 is classified at the alert level instead of an unusual event or site area emergency?
9. The NRC would like to discuss our dose calculation methodology that is used in the EALs for Section 5.1.
10. Why was EAL 4 of NUMARC's AS1 not included in EAL 5.2.3?
11. Why was EAL 4 of NUMARC's AG1 not included in EAL 5.2.4?
12. EAL 6.1.2 should be revised to account for the situation of having one offsite line and no diesels.
13. EAL 6.1.4 should be revised to included fission product barrier monitoring as stated in the NUMARC guidance.
14. In EAL 7.3.3, if the suppression pool is at the boiloff rate, what will stop HPCI and RCIC from operating?
15. For EAL 7.4.1.q, are the examples in the table 'or' or are they 'and'?
16. EAL 8.1.1 does not meet the guidance given by NUMARC in that it does not discuss either a bomb discovered within the protected or any other events that are determined from the Safeguards Contingency Plan.